

Testimony of Mr. John W. Burke III

Before

Committee on Agriculture  
U.S. House of Representatives

June 29, 2006

*The Role of America's Forest  
Resources in Providing  
Renewable Fuels and Energy*

Thank you for this opportunity to testify in connection with the role of America's forest resources in providing renewable fuels and energy.

Mr. Chairman and other members of the House Committee on Agriculture, my name is John Burke. My wife and I live on our tree farm in Caroline County, Virginia and I practice law at McGuireWoods in Richmond, Virginia.

My professional life is focused on technology, intellectual property and business law. In particular, I assist companies in putting cutting edge technology to work. In my private life, I manage over 2,000 acres of forest in Caroline County, Virginia, through two family limited partnerships. I am also active in many forestry-related organizations and currently have the privilege of serving as President of the Virginia Forestry Association.

The wise management of forest resources is critically important to the health of the forest and to many benefits that the public enjoys, including habitat for various wildlife species, protection of water quality through management of critical watersheds, the enhancement of air quality and green space around our cities and urban areas. This stewardship and management, for future sustainability, however, cannot occur in a vacuum. It must occur in the context of real world markets and the challenges and risks facing forest landowners.

Now that you know my interests and biases, I would like to share some thoughts in connection with the role of our forest resources in providing renewable fuels and energy.

As is evidenced by the Energy Policy Act of 2005, renewable energy is a concept whose time has come. We are all told by our financial planners that we should balance our portfolios. It is time for this nation to balance its energy portfolio by including in that portfolio more energy from bio-based, renewable sources.

The solutions to the renewable energy puzzle are factually and geographically complex, and the solutions must be analyzed and addressed on a customized basis, tailored to each locality and to each specific situation.

As this Committee is aware, biomass has a role in the renewable energy solution and the products from our nation's forest have a key place in that solution. Concurrently, the use of our forest resources to meet that renewable energy need must be sensitive to sound forest management and to a protection of our environment.

I will utilize a three part framework to analyze of the role of America's forest resources in providing more renewable fuels and energy.

The following three components will be discussed:

1. feedstocks;
2. the processes; and
3. commercial scale and profitability.

Feedstock, under my definition, is a bio-based product of one of two types – either a newly grown crop, or a residual or waste product of some manufacturing process or other activity. To succeed in a renewable energy project, the feedstock must be

available in sufficient quantities and on a consistent basis (seven days a week, 52 weeks a year, rain or shine). The feedstock must be available without excessive transportation costs and it must be relatively easy to store. Further, a successful feedstock must be available over a long period of time and on a sustainable basis and without damage to our environment.

Feedstock solutions will come in many forms and will be specific to each locality. In particular, some solutions may involve a predominance of one type of feedstock. Other solutions will involve a mixture of different feedstocks, both newly grown and residual.

Now, let's focus on the forest resource and its role in this feedstock supply. Forest based, cellulosic feedstock as an energy crop will typically take the form of smallwood. Smallwood is a good feedstock for two reasons: one, the thinning or the removal of smallwood is important to the management of forest stands, whether hardwood or pine, because it removes the smaller, less competitive trees, allowing the crop trees to mature for higher value uses. The second reason touches on a point I made earlier about the need for readily available feedstock in a successful renewable energy project: smallwood is not a food.

In addition, our forest resources can play a role in providing a hedge in connection with other types of feedstock. For example, certain annual energy crops, like corn, wheat straw, and switchgrass, can be subject to seasonal droughts. A forest based feedstock typically will develop over a 7-18 year period and harvesting or thinning of these stands will provide a balance in the feedstock supply. Further, these new markets for forest products will play an important role in keeping our forest lands profitable, a necessary

element to their continued viability and to the continued social benefits that we derive from forest land. One should note, however, that proper commercial forest management involves thinning and harvesting and, if done properly, this thinning and cutting of trees will lead to healthy forests and the regeneration of our forest resources, a key aspect to the sustainability of using forest based bio-mass.

In addition, trees can be selected and improved to produce biomass in a very efficient fashion. Hybrid poplars, for example, can be planted and grown in a dedicated tree farm format similar to the growing of corn or switchgrass, where the rotations are longer, thus providing the balance needed for a consistent mix of feedstocks. In Virginia, for example, much of our former tobacco land is under utilized and could be planted in a combination of switchgrass and hybrid poplars, to provide the necessary feedstock for cellulosic ethanol production.

Moreover, this country's pulp and paper industry has one of the world's best fiber procurement systems. Further, the pulp and paper industry and the forest products industry do a good job of recycling and reclaiming fiber. A renewable energy economy balanced to include more biomass would provide additional markets and additional uses for available wood fiber and bio-based waste materials from the manufacture of forest related products.

Part two of the role of America's Forest Resources in Providing Renewable Fuels and Energy involves processes and technology.

The ingenuity of scientists at our colleges and universities, within our companies, and at governmental agencies should not be underestimated. Many technologies and

processes will be needed to convert the numerous biomass feedstocks to renewable fuels, energy, and carbohydrate based products.

These technologies and processes will be staged in various levels, one after the other, to maximize the yield of energy and products from biomass. A survey of the Patent Office and related literature in the area of converting cellulosic material to bio-based fuels, energy, and other products reveals many issued patents and much related technology. A survey of our colleges and universities reveals more than 24 institutions of higher learning with ongoing research and technology in the area of processes for converting biomass to renewable fuels, energy, and carbohydrate based products. Recently I visited leading scientists at Virginia Tech, in Blacksburg, Virginia, to get an overview of cutting edge technology in the areas of forestry, biological systems engineering, and horticulture. Much activity is underway at this institution.

A review of the National Renewable Energy Laboratory's web site and related articles shows much innovation and technological development. Moreover, many companies are developing technology and other proprietary rights in connection with the processes for converting biomass to renewable energy and carbohydrate based products. Iogen is one of the leaders in the area of cellulosic ethanol production. Other companies working in the area of developing enzymes to convert cellulosic biomass to fuel and other products include Dyadic International ([www.dyadic-group.com](http://www.dyadic-group.com)), Genencor International ([www.genencor.com](http://www.genencor.com)) and Novozymes A/S ([www.novozymes.com](http://www.novozymes.com)). In addition, the pulp and paper industry has much research and development devoted to breaking down, manipulating and processing wood fiber. Significant activity devoted to

processes critical to the production of cellulosic ethanol, other renewable fuels, and carbohydrate based products is under way, and we must continue to encourage it.

As we step back and look at the renewable energy initiative, the conversion of biomass from our forests, will be a key component to the renewable energy solution.

Interconnected processes and technology must be identified, licensed and fit together in a cohesive fashion to meet this need, on a customized basis, in different geographical areas, thus allowing for the conversion of various bio-based feedstocks to renewable fuels, energy, and other bio-based products.

America's forest resources can be wisely managed and produce a significant portion of this cellulosic material.

The third component of the role of America's Forest Resources in Providing Renewable Fuels and Energy is commercial scale and profitability.

The various bio-based feedstocks must be available consistently and sustainably to facilitate the production of biofuels and bioproducts at commercially profitable levels. A combination of processes and technologies must dovetail with these feedstocks and all of this must occur on a case by case basis, sensitive to the biomass resources available in each locality. In some cases, there will be the need for a new, large scale production facility. Many companies today are exploring investment potentials and the necessary technology to develop these large scale, bio-based production facilities. In addition, there will be the need for small scale bio-based fuel and energy production capability. For example, small scale biomass energy units could provide the energy needs of greenhouses and other small scale farming operations. There are many different

embodiments for a renewable fuel initiative. The full spectrum should be explored and encouraged.

In addition to green field activities, our pulp and paper industry has existing facilities, labor, and infrastructure that could be expanded and refocused to produce, in addition to paper and other consumer products, biofuels, bioenergy and other carbohydrate based products. The paper mill of the future may well be a fully integrated, side by side operation, including pulp procurement, paper production and a biorefinery, producing renewable fuels, energy, and other bio-based products.

These new capabilities will require financial investments, the development and sharing of technology, facility construction, and other infrastructure coordination. I will end where I started. Renewable energy is a concept whose time has come. Biomass is a key element to that renewable energy initiative and America's forest resources can and should play a major role in the supply of that biomass. It is my request that this Committee and Congress continue to encourage and incentivize the production of renewable fuels and bio-based products from our forests.





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Mr. Burke's practice involves transactional work, including technology transfers, licensing agreements and joint venture arrangements, protection of intellectual property, including trademarks and copyrights as well as dispute-related work, including infringement claims in the areas of copyright, trademark, trade secret, and related intellectual property.

In addition, his practice addresses many areas including retail and distribution, forest products, advertising, and private sector participation in the areas of defense and security. He lectures frequently on topics in the intellectual property area, including trademarks, unfair competition, trade secrets, computer law and licensing, and on topics relating to forestry and the forest products industry.

**Department**

- Technology & Business

**Practice Areas**

- Intellectual Property
- Emerging Growth and Technology

**Firm Management**

- Leader, Intellectual Property Team, 1985-1999
- Chairman, Recruiting Committee, 1996-1997
- Member, Recruiting Committee, 1982-1985, 1989-1990
- Associate Committee, 1993-1995

**Education**

- University of Virginia School of Law, Charlottesville, Virginia, J.D., 1979

- Order of the Coif
- Law Review: *Virginia Law Review*, Notes and Survey Editor, 1978-1979
- The College of William & Mary, Williamsburg, Virginia, B.A., 1976
  - Phi Beta Kappa

#### **Honors**

- AV Rated, Martindale-Hubbell

#### **Publications**

- "Business on the Internet: An Intellectual Property Perspective"
- "Recent Developments in Trademark Law"
- "Ten Strategies for Trade Secret Protection"
- "Recent Developments in Trademark Law"
- "The Federal Dilution Act, *Intellectual Property Newsletter* of the Virginia State Bar
- "Ring the Bell," *Virginia Lawyer*
- "Federal Registration of Trademarks and Service Marks," *Trademark Law, Virginia Lawyer*

#### **Speaking Engagements**

- The Hearts and Minds of Forest Owners, Yale School of Forestry and Environmental Studies, January 2005
- Congressional Testimony, before House Committee on Agriculture Washington, D.C., July 2004
- Summit on Virginia's Forest Industries, Danville, Virginia
- Three Presentations on Trademarks, Copyrights and Trade Secrets, The Community College Workforce Alliance Small Business Consulting Center, Richmond, Virginia
- Natural Resources Leadership Summit, Williamsburg, Virginia
- The Five Ps of Promoting Forestry, Wintergreen, Virginia
- Virginia's Agriculture Task Force, Growth & Prosperity from the Land, Virginia Forestry Association, Wintergreen, Virginia
- Intellectual Property Workshop, Wilmington, Delaware
- "Trademarks and Copyrights," Jacksonville, Florida
- Protection of Intellectual Property, Triadelphia, West Virginia and Leesburg, Virginia
- Woodland Law, A Landowners' Guide to Forestry and Legal Issues, Fredericksburg, Virginia
- Protecting Your Intellectual Property, SBIR/STTR Workshops in Richmond, Charlottesville, Norfolk, Blacksburg, Harrisonburg, Newport News, Fairfax, Falls Church and Williamsburg, Virginia
- 18th Annual Business Law Seminar, "E-Commerce: Basics for the General Business Practitioner," Virginia CLE
- Case Law Development in Trademark Law, Greater Richmond Intellectual Property Law Association, Richmond, Virginia
- Case Law Development in Trademark Law, DuPont CLE Intellectual Property Law Seminar, Wilmington, Delaware
- Internet Conference, A Workshop on Internet Legal Issues, Richmond, Virginia
- Business on the Internet: An Intellectual Property Perspective, Virginia CLE – Computer Law
- Intellectual Property Conference, Richmond, Virginia and Tysons Corner, Virginia

- Intellectual Property: Defense Technologies Conference, CIT
- Navigating the Net, Maximizing Your Business Opportunities with Today's Technology, Richmond, Virginia
- Doing Business on the Internet, Possibilities and Potholes on the Information Super Highway, Tysons Corner, Virginia
- Doing Business on the Internet, Washington, D.C.
- Navigating the Net, Intellectual Property Issues, Richmond, Virginia
- Recent Developments in Trademark Law, Virginia CLE
- Protecting and Utilizing Technology, Farm Machinery Manufacturing, Bahamas
- Protecting and Utilizing Technology, Workshop in Zurich, October 1992
- Conducting Trade Secret Audit, Workshop in Korea, March 1992 and October 1992

#### **Professional Affiliations**

- Virginia State Bar
  - Chairman, Section of Intellectual Property, 1994-1995
  - Chairman-Elect, Section of Intellectual Property, 1993-1994
  - Vice-Chairman, Section of Intellectual Property, 1992-1993
  - Secretary, Section of Intellectual Property, 1991-1992
  - Board of Governors, Section of Intellectual Property, 1988-1991
- Virginia Bar Association, Chairman, Committee on Intellectual Property, 1990
- Virginia Forestry Association
  - President
  - Executive Committee
- Member, Governor Warner's Task Force to Study Improving Agriculture and Forestry
- Member, Steering Committee, Virginia Forest Industries Study

#### **Admitted**

- Virginia 1979
- U.S. District Court for the Eastern District of Virginia 1979
- U.S. District Court for the Western District of Virginia 1979
- U.S. Court of Appeals for the 4th Circuit 1979

#### **Place of Birth**

- Fredericksburg, Virginia

Committee on Agriculture  
U.S. House of Representatives  
Required Witness Disclosure Form

House Rules\* require nongovernmental witnesses to disclose the amount and source of Federal grants received since October 1, 2004.

Name: John W. Burke III  
Address: 12602 Woodford Rd, Woodford, Va. 22580  
Telephone: (804) 775 4377

Organization you represent (if any): Note: I am appearing as an individual, but file this form on behalf of Burke Holdings, L.P., a family limited partnership that manages forest land.

1. Please list any federal grants or contracts (including subgrants and subcontracts) you have received since October 1, 2004, as well as the source and the amount of each grant or contract. House Rules do NOT require disclosure of federal payments to individuals, such as Social Security or Medicare benefits, farm program payments, or assistance to agricultural producers:

Source: \_\_\_\_\_ Amount: \_\_\_\_\_

Source: \_\_\_\_\_ Amount: \_\_\_\_\_

2. If you are appearing on behalf of an organization, please list any federal grants or contracts (including subgrants and subcontracts) the organization has received since October 1, 2004, as well as the source and the amount of each grant or contract:

Source: Conservation Reserve Program Amount: 2,500.00 (October 2004)  
Source: EQUIP Amount: 2,500.00 (October 2005)  
Source: WHIP Amount: 8,408.11 (7/25/05)  
Amount: 2,367.21 (10/27/04)

Please check here if this form is NOT applicable to you: ☒ but see Note above

Signature: [Signature] President of G.P. of  
Burke Holdings, L.P.

\* Rule XI, clause 2(g)(4) of the U.S. House of Representatives provides: Each committee shall, to the greatest extent practicable, require witnesses who appear before it to submit in advance written statements of proposed testimony and to limit their initial presentations to the committee to brief summaries thereof. In the case of a witness appearing in a nongovernmental capacity, a written statement of proposed testimony shall include a curriculum vitae and a disclosure of the amount and source (by agency and program) of each Federal grant (or subgrant thereof) or contract (or subcontract thereof) received during the current fiscal year or either of the two previous fiscal years by the witness or by any entity represented by the witness.

PLEASE ATTACH DISCLOSURE FORM TO EACH COPY OF TESTIMONY.